

## CLAIMS

What is claimed is:

- 1           1.       A method to be performed by a data processing system comprising:  
2           providing distributed queuing of workflows, whose execution is requested by one  
3           or more execution-requesting clients, among a plurality of workflow engines; and  
4           if a workflow is completed by a first workflow engine for an execution-requesting  
5           client, sending an explicit and delayed acknowledgement to the execution-requesting  
6           client, else assigning the workflow to a second workflow engine.
- 1           2.       The method recited in claim 1, wherein providing is performed by a load  
2           manager.
- 1           3.       The method recited in claim 2, wherein the load manager comprises a  
2           commercially available middleware product.
- 1           4.       The method recited in claim 1, wherein the explicit and delayed  
2           acknowledgement is performed by a certified messaging capability.
- 1           5.       The method recited in claim 4, wherein the certified messaging capability  
2           is performed by a load manager.
- 1           6.       The method recited in claim 4, wherein the load manager comprises a  
2           commercially available middleware product.
- 1           7.       The method recited in claim 4, wherein the certified messaging capability  
2           is performed by a certified message receiver forming part of the workflow.

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1           8.     The method recited in claim 4 and further comprising:  
2           the certified messaging capability sending an explicit and delayed  
3 acknowledgement to the execution-requesting client if the workflow is completed by the  
4 second workflow engine.

1           9.     A method to be performed by a computer network comprising a plurality  
2 of clients and a plurality of workflow engines:  
3           providing distributed queuing of workflows, whose execution can be requested by  
4 one or more execution-requesting clients, among the plurality of workflow engines; and  
5           determining whether a workflow has been completed by a first workflow engine  
6 on behalf of an execution-requesting client; and  
7           if so, sending an explicit and delayed acknowledgement to the execution-  
8 requesting client;  
9           otherwise, assigning the workflow to a second workflow engine.

1           10.    The method recited in claim 9, wherein providing is performed by a load  
2 manager.

1           11.    The method recited in claim 10, wherein the load manager comprises a  
2 commercially available middleware product.

1           12.    The method recited in claim 9, wherein sending is performed by a  
2 certified messaging capability.

1           13.    The method recited in claim 12, wherein the certified messaging  
2 capability is performed by a load manager.

1           14.    The method recited in claim 12, wherein the load manager comprises a  
2 commercially available middleware product.

1           15.     The method recited in claim 12, wherein the certified messaging  
2     capability is performed by a certified message receiver in the workflow.

1           16.     The method recited in claim 12 and further comprising:  
2             the certified messaging capability sending an explicit and delayed  
3     acknowledgement to the execution-requesting client if the workflow is completed by the  
4     second workflow engine.

1           17.     A computer adapted for use in a computer network comprising a plurality  
2     of workflow engines, the computer executing a computer program, the computer  
3     program operating the computer in a fault-tolerant manner and comprising the operations  
4     of:  
5             requesting a workflow execution on behalf of a client;  
6             a distributed queuing capability assigning the workflow execution to a first  
7     workflow engine;  
8             determining whether the workflow execution has been completed by the first  
9     workflow engine; and  
10            if so, sending an explicit and delayed acknowledgement to the client;  
11            otherwise, assigning the workflow execution to a second workflow engine.

1           18.     The computer recited in claim 17, wherein requesting is performed by a  
2     load manager.

1           19.     The computer recited in claim 17, wherein sending is performed by a  
2     certified messaging capability.

1           20.     The computer recited in claim 19, wherein the certified messaging  
2     capability is performed by a certified message receiver in the first workflow engine.



1           26.     The computer network recited in claim 24 and further comprising:  
2           the certified messaging capability sending an explicit and delayed  
3 acknowledgement to the client if the workflow execution is completed by the second  
4 workflow engine.

1           27.     A computer-readable medium containing computer instructions for  
2 instructing a processor, the processor adapted for use in a computer network comprising  
3 a plurality of workflow engines, wherein the instructions comprise:  
4           requesting a workflow execution on behalf of a client;  
5           a distributed queuing capability assigning the workflow execution to a first  
6 workflow engine;  
7           determining whether the workflow execution has been completed by the first  
8 workflow engine; and  
9           if so, sending an explicit and delayed acknowledgement to the client;  
10          otherwise, assigning the workflow execution to a second workflow engine.

1           28.     The computer-readable medium recited in claim 27, wherein requesting is  
2 performed by a load manager.

1           29.     The computer-readable medium recited in claim 27, wherein sending is  
2 performed by a certified messaging capability.

1           30.     The computer-readable medium recited in claim 29, wherein the certified  
2 messaging capability is performed by a certified message receiver in the first workflow  
3 engine.

1           31.     The computer-readable medium recited in claim 29 and further  
2 comprising:  
3           the certified messaging capability sending an explicit and delayed  
4 acknowledgement to the client if the workflow execution is completed by the second  
5 workflow engine.

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